

# BAY COUNTY DRAIN COMMISSIONER

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(HEARING IMPAIRED)

## APPLICATION FOR PERMIT TO TILE AN ESTABLISHED COUNTY DRAIN

**The following information and specifications should be provided to your pre qualified contractors to assure that you, as landowner, receive quality products that are installed properly and will not be an impediment to the established county drain.**

Applicant's Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Telephone Number: (\_\_\_\_\_)\_\_\_\_\_

Parcel Code #: \_\_\_\_\_

Contractor's Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Telephone Number: (\_\_\_\_\_)\_\_\_\_\_

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I do hereby make application for a permit for installation of a tile to be placed in the \_\_\_\_\_

\_\_\_\_\_ County Drain at the following

location:(address)\_\_\_\_\_ ,

Township of \_\_\_\_\_ approx. distance for closest intersection: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

I certify that I accept the following:

1. Installation contractors must be pre-qualified by the Bay County Drain Commissioner.
2. Commencement of work set forth in the permit application constitutes acceptance of the permit as issued.
3. Failure to object within ten (10) days to the permit as issued constitutes acceptance of the permit as issued.
4. I will be responsible for and pay all costs for engineering and inspection services incurred by the Bay County Drain Commissioner in reviewing this Permit Application and for all costs of inspection of the work thereunder.

5. The permit fee is \$300.00, which includes setting grade, culvert installation inspection and final "as constructed" inspection. The fee is based on an eight hour work day and any additional services that are required will be billed at \$150.00 per half day and \$300.00 per full day. Overtime and holiday pay will meet the requirements of the Bay County Labor Agreements. Please make checks payable to the Bay County Treasurer and mail to this office.
6. All culverts must be of proper size and material set at the established drain bottom. New material to be used only.
7. **Before setting the new drive culvert/tile the drain is to be excavated down to clay and stone bedding prepared at an elevation suitable for the type of pipe to be set to insure that the new structure meets the required elevation and grade.**
8. Any structures removed such as headwalls, wingwalls, concrete slabs, rip rap, erosion protection, tiling and culverts - metal or concrete, must be replaced with new material and reconstructed to original condition or better.
9. All ditch banks, when disturbed, must be reshaped to a minimum of 2:1 slope, compacted, topsoiled and seeded, fertilized and mulched or hydroseeded.
10. **Five (5) days notice** is required to the inspection department prior to any construction and final inspection request that will involve a county drain.
11. Equipment and materials may not be stored in any way so as to cause blockage of a county drain.
12. Contractor is to complete the attached Culvert Installation Verification & Request for Final Inspection upon completion of the culvert installation.
13. Permittee is responsible for maintaining all storm drainage during the time of construction, whether by use of pumping equipment or construction of a bypass system.
14. Depending on circumstances, prior to issuance of a permit, proof of Contractor's Liability Insurance should be filed with the Office of the Drain Commissioner, with the named insured, in compliance with the Bay County Drain Commissioner's standards.
15. This permit does not relieve applicant from meeting any application requirement of law or of other public bodies or agencies, i.e. local, state or federal.
16. Permittee shall hold harmless the Drainage District, the Bay County Drain Commissioner, or Drainage Board, County of Bay, and State of Michigan for any liability connected with installation of said tile.
17. Any failure of the work performed under this permit that causes an obstruction shall be subject to the provisions set forth under Section 280.421 of the Michigan Drain Code, Act 40 of 1956, as amended.

I hereby agree to comply with all terms and conditions as set forth in the permit, together with the rules and regulations as established by the Bay County Drain Commissioner:

DATE: \_\_\_\_\_

\_\_\_\_\_  
Applicant's Signature

# **BAG RIP RAP HEADWALLS**

## **1. MATERIALS**

- A. Wet Mixed Concrete - One (1) part cement to five (5) parts 40-60 concrete gravel or transit mixed with a 28-day comprehensive strength of 3,000 psi.
- B. Burlap Bags - Made of biodegradable cotton burlap material and of adequate size to provide for a filled dimension of 6 inches high with a 1-foot width.
- C. Steel Reinforcing Bars - Grade 60 steel reinforcing bars meeting the requirements of ASTM A-615, A-616, or A-617 of 1/2 inch diameter #4.
- D. Filter Fabric - Mechanically-bonded, non-woven, SUPAC 4NP or approved equal. In accordance with 02279 - Filter Fabric.

## **2. PREPARATION**

- A. Before setting the new drive culvert/tile, the drain is to be excavated down to clay and a stone bedding prepared at an elevation suitable for the type of pipe to be set to insure that the new structure meets the required elevation and grade.
- B. Cut out soft areas of subgrade not capable of insitu compaction. Backfill with Type A fill and compact to density equal to or greater than 95% percent of maximum dry density in accordance with ANSI/ASTM D698.

## **3. EXECUTION**

- A. Fill concrete bags to a maximum thickness of 6 inches.
- B. Place rip-rap beginning a minimum 12 inches below invert of crossing or subgrade elevation.
- C. Stagger bags to provide minimum 1/3 bag overlap on subsequent layers.
- D. Place subsequent rows of bags to taper in toward center of crossing at 1-foot horizontal to 6-foot vertical.
- E. Extend rip-rap a minimum of 18 inches perpendicular into the side slopes of the proposed channel or undisturbed bank.
- F. Extend rip-rap to a height of 6 inches below the finished surface of a driveway or farm crossing.
- G. Height of rip-rap for a County Road or State Highway crossing shall be as indicated on the drawings or as directed by the authority having jurisdiction.
- H. Drive reinforcing bars vertically through all rows of the headwall and all bags.
- I. Install filter fabric behind bag rip-rap and secure with a minimum of overlap of 1-foot in any direction.

# HEADWALL SPECIFICATIONS

## 1. GENERAL

- A. **Pre-mix bags will NOT be allowed for headwall construction in any established county drain. If constructing Bag Rip-Rap headwalls please see attached specifications and details.**
- B. For established county drains parallel to county roads or state highways, 30" diameter pipe and smaller will require the use of flared end sections. Flared end sections must be in compliance with Road Commission and Michigan Department of Transportation standards.
- C. Poured-in-place headwalls may be allowed with provided shop drawings from the contractor and approval by the Bay County Drain Commissioner.
- D. Masonry headwalls may be allowed with provided shop drawings from the contractor and approval by the Bay County Drain Commissioner.